

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060447

Luminaire Tested: S124RDRP-S350D940-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060447  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S350D940-X4F0-XX-UDD-SVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

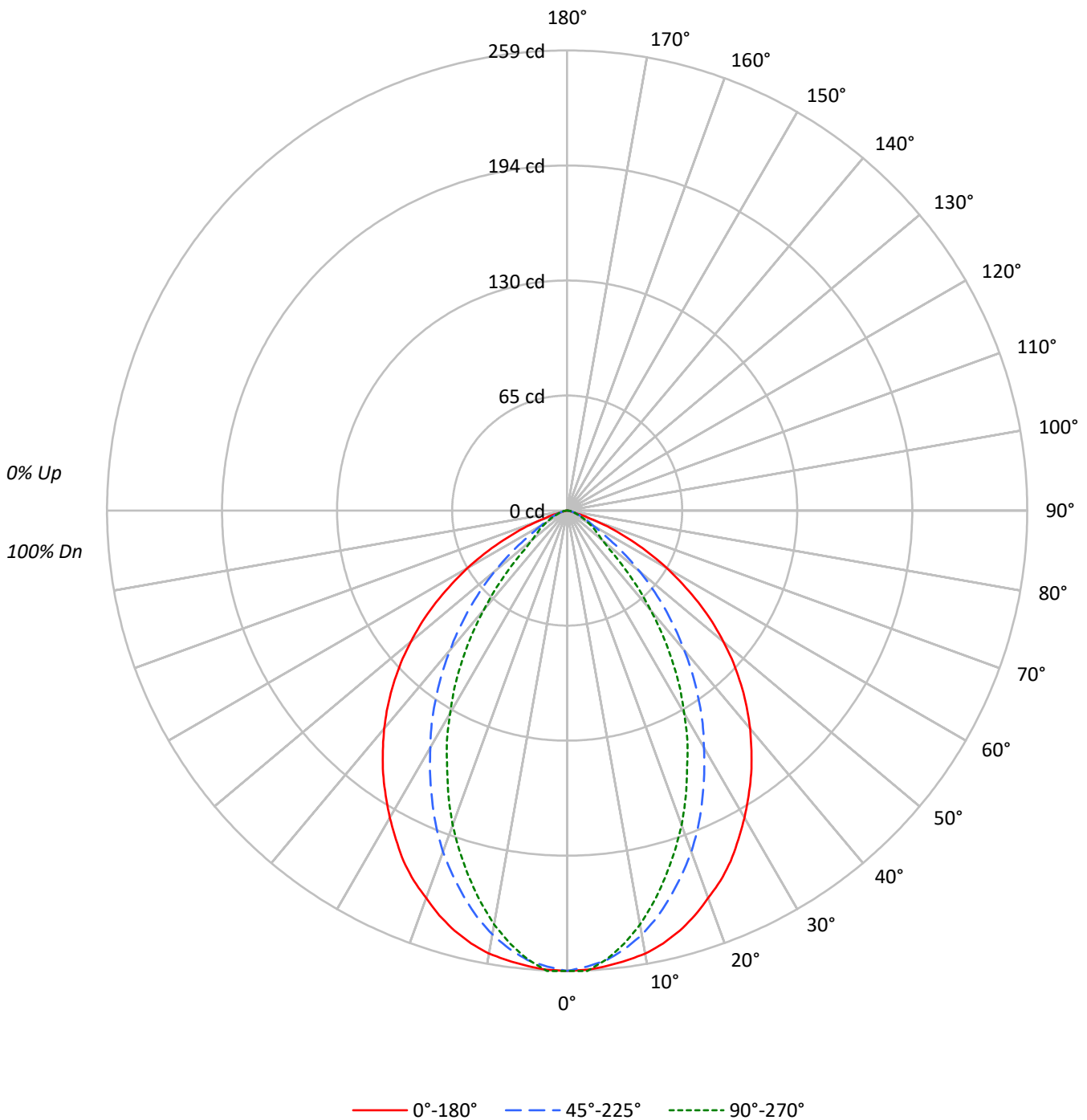
Lumens per Lamp: N/A  
Luminaire Lumens: 382.0 lumens  
Efficiency: N/A  
Efficacy: 30.6 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 12.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63
5	84	74	66	61	82	73	66	60	71	65	60	69	63	59	67	62	59	57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	48	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2231	2231	2231
5°	2224	2196	2192
10°	2214	2119	2068
15°	2182	2004	1903
20°	2127	1872	1726
25°	2069	1709	1518
30°	1985	1531	1310
35°	1899	1354	1082
40°	1801	1152	821
45°	1684	943	550
50°	1539	714	342
55°	1353	471	290
60°	1119	289	239
65°	811	222	194
70°	441	166	146
75°	96	120	133
80°	74	89	109
85°	69	69	109

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1684 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.0	6.3
10°-20°	63.8	16.7
20°-30°	84.5	22.1
30°-40°	83.8	21.9
40°-50°	64.5	16.9
50°-60°	38.4	10.1
60°-70°	17.5	4.6
70°-80°	4.5	1.2
80°-90°	1.0	0.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	172.2	45.1
0°-40°	256.0	67.0
0°-60°	359.0	94.0
0°-90°	382.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	382.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	259	259	259	259	259	
5°	257	258	254	254	254	24
15°	245	239	225	217	214	69
25°	218	202	180	165	160	100
35°	181	158	129	109	103	113
45°	138	111	77	54	45	106
55°	90	64	31	20	19	80
65°	40	24	11	10	10	40
75°	3	4	4	4	4	6
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	259.1	259.1	259.1	259.1	259.1
2.5°	258.7	259.1	256.9	258.7	259.4
5°	257.3	257.6	254.0	254.0	253.6
7.5°	255.4	254.7	248.9	246.7	245.9
10°	253.2	250.7	242.3	237.9	236.5
12.5°	249.6	245.6	234.3	228.1	225.5
15°	244.8	238.6	224.8	217.1	213.5
17.5°	239.0	231.3	214.9	205.1	201.1
20°	232.1	221.9	204.3	191.9	188.3
22.5°	225.5	212.7	192.7	178.4	174.4
25°	217.8	202.2	179.9	164.9	159.8
27.5°	208.7	191.9	167.1	151.8	146.7
30°	199.6	181.0	154.0	137.9	131.7
32.5°	190.1	169.7	141.9	123.7	117.9
35°	180.6	158.0	128.8	109.1	102.9
37.5°	170.4	146.3	115.7	95.2	88.3
40°	160.2	135.0	102.5	81.7	73.0
42.5°	149.6	123.3	89.8	67.9	59.1
45°	138.3	111.3	77.4	54.0	45.2
47.5°	127.0	100.0	65.0	40.5	32.5
50°	114.9	87.9	53.3	29.6	25.5
52.5°	102.9	76.3	41.6	23.0	21.9
55°	90.1	64.2	31.4	19.7	19.3
57.5°	77.0	53.3	22.6	17.2	16.4
60°	65.0	43.1	16.8	14.6	13.9
62.5°	52.5	32.5	13.9	12.0	11.3
65°	39.8	23.7	10.9	9.5	9.5
67.5°	28.8	16.1	8.8	7.7	7.3
70°	17.5	9.9	6.6	6.2	5.8
72.5°	8.8	5.8	5.1	4.7	4.7
75°	2.9	3.6	3.6	4.0	4.0
77.5°	2.2	2.6	2.6	2.9	2.9
80°	1.5	1.8	1.8	2.2	2.2
82.5°	1.1	1.1	1.5	1.5	1.8
85°	0.7	0.7	0.7	1.1	1.1
87.5°	0.4	0.4	0.4	0.7	0.7
90°	0.0	0.0	0.0	0.0	0.0



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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	11.91	13.24	12.27	13.56	13.87	3.47	4.81	3.84	5.12	5.43
	3H	12.42	13.60	12.80	13.93	14.29	4.28	5.46	4.66	5.79	6.16
	4H	12.38	13.48	12.79	13.83	14.22	4.56	5.66	4.96	6.01	6.39
	6H	12.32	13.33	12.74	13.70	14.09	4.73	5.74	5.15	6.11	6.50
	8H	12.28	13.24	12.71	13.63	14.03	4.80	5.75	5.23	6.14	6.55
	12H	12.24	13.16	12.68	13.54	13.97	4.84	5.75	5.27	6.13	6.57
4H	2H	11.75	12.85	12.15	13.20	13.58	3.91	5.00	4.31	5.35	5.74
	3H	12.31	13.20	12.72	13.60	14.01	4.87	5.76	5.28	6.16	6.57
	4H	12.27	13.07	12.71	13.49	13.93	5.23	6.02	5.66	6.44	6.88
	6H	12.22	12.91	12.68	13.35	13.82	5.48	6.16	5.94	6.61	7.07
	8H	12.18	12.81	12.64	13.26	13.73	5.56	6.20	6.03	6.65	7.12
	12H	12.14	12.70	12.62	13.18	13.66	5.64	6.20	6.13	6.69	7.16
8H	4H	12.16	12.80	12.63	13.25	13.72	5.31	5.95	5.78	6.40	6.87
	6H	12.10	12.62	12.60	13.12	13.60	5.62	6.15	6.13	6.64	7.12
	8H	12.06	12.52	12.58	13.04	13.53	5.76	6.23	6.28	6.74	7.23
	12H	12.02	12.44	12.54	12.93	13.50	5.90	6.31	6.41	6.80	7.38
12H	4H	12.12	12.69	12.61	13.17	13.64	5.29	5.85	5.77	6.34	6.81
	6H	12.05	12.52	12.57	13.03	13.52	5.60	6.07	6.13	6.59	7.08
	8H	12.02	12.43	12.54	12.93	13.50	5.78	6.19	6.29	6.69	7.26